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| Time | Activity | Materials Needed |
| 7:00 | Arrive, unpack, set up and prepare |  |
| 8:30  5 minutes | Introductions   * Share times for the day, lunch options, restroom locations, sign in procedures | Slide #2  No materials |
| 8:35  25 minutes | How Many Beads Behind the Cloud?   * Show slide number 3 and have the teachers share “what the wonder” * The main question *“How many beads behind the cloud?”* * **What to notice:** black beads increasing by 1 and white beads increasing by doubles plus 1.  |  |  | | --- | --- | | Black | White | | 1 | 2 | | 2 | 5 | | 3 | 11 | | 4 | 23-2=21 | | 5 | 47 | | 6 | 94-3=91 | | 7 |  |   There are **170 total beads** behind the cloud  \*\*\*shaded cells are what’s behind the cloud\*\*\*   * Talking point: when wrapping up and closing be sure to discuss that understanding numbers is all about being able to recognize the relationships and patterns between numbers (refer to slide 4 with Van de Walle quote to support the closing) | Slide #3  Scratch paper and pencil  Slide #4 –use when wrapping up the task |
| 9:00  10 minutes | Discuss the purpose of today and the importance of the IKAN and GloSS assessment. Some ideas could include but not limited to   * We need to identify students before they get to HS * We need to identify gaps in student learning and do a better job AS A WHOLE supporting the needs of these students * Hopefully the purpose of the course will be eliminated in some years because we would have caught students earlier in the process but that’s not the case for now.   Place value, operation with integers and an understanding of fractions. If our students left MS with these 3 things the world would be a happier place. (refer to standards slides (#6) to support this idea.  Discuss and share how the assessment serves as a diagnostic, formative and summative assessment. | Slide #5  Slide #6  Slide #7 |
| 9:10  5 minutes | * Discuss the difference between the IKAN and GloSS * Although the assessment are said together they are assessing 2 completely different portions of number sense. * IKAN is assessing a student’s ability to automatically recall numbers (automatic) * GloSS assessing a student’s ability to strategies and think flexibly about numbers * The 2 assessments complement each other but they are completely different. | Slide #8 |
| 9:15  20 minutes | **Administering the IKAN Assessment FORM 1**   * Tell teachers that you are going to administer the assessment just as they would do with their students. Hand out the student recording sheet and ask teachers to fill out the name, year, date and circle FORM 1. * Review that there are 4 forms. * Explain that the questions go vertically and to go until the test gets too hard or you miss one. * Prepare the teachers for the New Zealand accent. * After the completion of the assessment have teachers score their answers using slide #12 * Share how the tally up the rows and columns to identify the strategy stage. Be sure to include overall AND a conversation about specific domains.   Have teachers share there ah-ha’s, revelations, thoughts about the assessment. It is extremely important to emphasize that this assessment if different from a timed test. Have teachers brainstorm how it is? Students cannot memorize what number comes before 802, 000 but they a quickly recall a strategy to find the number and that’s the difference. | Slide #9-13  2 IKAN recording sheets front to back |
| 9:35  15 minutes | Have teachers repeat the assessment using FORM 2 | Slide #14-16  Back side of students recording sheet. |
| 9:45  10 minutes | Share and discuss the IKAN Continuum Expectancy Stages  Be sure to connect that students who are unable to successfully answer the first 2 parts have a number sense equivalency rate to that if a 4th grader. This is the requirement proposed by the DOE.   * Discuss Modifications and Accommodations (slide 18) | Slide #17-18 |
| 9:55  5 minutes | \*\*\*BRIEFLY\*\*\*   * Introduce teachers to the IKAN counting interview part 1. They will to administer this but make them aware that there is a piece that happened before students get to the IKAN part 2. * Now would be a great time to plug that the IKAN and GloSS assessments CAN BEGIN in a district as early as Kindergarten if they choose | Slide #19-21 |
| 10:00 | \*\*\*10 minute restroom break\*\*\* |  |
| 10:10  10 minutes | **Dominating Doubles**   * Introduce and play the game (this game aligns with a 1st and 2nd grade standards) | Dominating Doubles board  10 sided dice  counters |
| 10:20  35 minutes | **Introduction to the GloSS**   * Review the difference between knowledge and strategy and GloSS and IKAN. * Teachers will be given the strategy stage handout with the numbers removed. Groups will be cutting out each strategy stage and attempting to put them in order from stage 0 through stage 8. After putting them in order, each group will discuss each stage and give student examples. Each group will be given a piece of chart paper and will fold it into fourths or eighths. After arranging the stages they will create an illustration in each box for the stages in the order that they placed them. * When completed with the chart, each group will turn and present the poster to another group. We will then ask if there were any disagreements or confusions.   Understanding the strategy stages is the key to providing appropriate interventions and extensions for students | Slide #21  Strategy stage handout  Scissors  Chart paper  Markers |
| 10:50  20 minutes | Share the correct order of the strategy stages and provide sample solutions of different strategies for each stage. | Slide #22-35 |
| 11:10  20 minutes | Review the recording sheet  Specifically talk about domains and how to record answers | Slide #36 |
| 11:30 | \*\*\*Lunch 11:30-1:00\*\*\* |  |
| 1:00  30 minutes | **Administer the GloSS to a volunteer teacher.**   * One volunteer will have the GloSS administered by facilitator using the first form of the assessment. * Participants will follow along in their manual * Facilitator records teacher responses under the document camera as participants follow along * Review and discuss the scoring and results once the assessment is complete. Discuss decisions made. Continue to refer teachers to the manual for clarification. * Questions   Have teachers talk in small groups and share back out what they notice and wondered about the assessment. | Slide #37-38  Document camera  1 teacher volunteer  Counters  GloSS Form 1  Manuals |
| 1:30  35 minutes | **Video Watch and Collab**   * watch the video being administered to 8th grade student (FORM 1) * listen and record student’s explanation * compare and discuss your recording sheet with your partner * compare with the administrator’s copy and discuss   Discuss the expectancy stage  Share back out what you notice and about the assessment | Slide #39-43  Slide #40 video  GloSS recording sheet |
| 2:05  55 minutes | Have teachers pair up with a partner and practice administering, scoring and repeating.   * First time use FORM 2 * Switch roles and use FORM 3   Reflect- Answer any remaining questions about either assessment (IKAN and/or GloSS) | Slide #44-45  Counters  GloSS Form 2-3  Manuals |
| 3:00 | Break 10 minutes |  |
| 3:10  10 minutes | **A Fishy Problem**   * This is an activity taken from NZMATHS | Slide #46-47 |
| 3:20  20 minutes | Give a virtual tour of NZMaths and Numeracy project and how to access the resources. | Slides #48-51 |
| 3:40  15 minutes | **Create 3**   * Play the game Create 3 from the Numeracy Project (if time permits) | Slide #52 |
|  | School growth and tracking data school wide.   * Each color on the wall represents a different grade level. * Notice the growth from August to January and the amount of students that advanced to a stage 7 & 8 | Slide #53-54 |
| Wrap-up | **Open Middle**   * Use if needed. * Describe how Open Middle problems provide and wonderful balance between strategy and automaticity | Slide #55 |